

Northwest of Syria Cholera Outbreak

Situation Report No.45

Epidemiological Week - 32 (6 Aug – 12 Aug 2023)

Date of Onset of Outbreak: 16 September 2022

Reporting Date of outbreak: 17 September 2022

Confirmation Date: 19 September 2022

Suspected Cases: 124909

Confirmed Cases: 946

Cholera Deaths : 24

Case Fatality Rate: 0.02%

NWS Attack Rate: 2.7%

Key Highlights

Cumulatively, a total of **124909 suspected** cases (**55404** in Aleppo governorate, **69505** in Idleb governorate) including **946 confirmed** have been reported by EWARN team since 16 September, including **24 deaths** case.

- The highest number of cases were reported in Harim district (34905) and Idleb district (23338) in Idleb governorate, then Azaz district (15465), Jebel Saman district (12211) in Aleppo governorate.
- 23531 total suspected cases (including 708 new cases in Epi week 32 - 2023) were reported from camps.
- 56.99 % Of the suspected cases are in the age group <5 years. Males are 51% of the total and females are 49%.
- Since the outbreak started, surveillance and reporting from facilities are being supported and strengthened. For better understanding of the background and context, [please read pervious sitreps.](#)
- Line list is shared with WHO and WASH team to aid Targeted response at a household level being conducted for identified cases.
- Active case search is ongoing, especially in the camps.

Situation Updates

1. Epidemiology

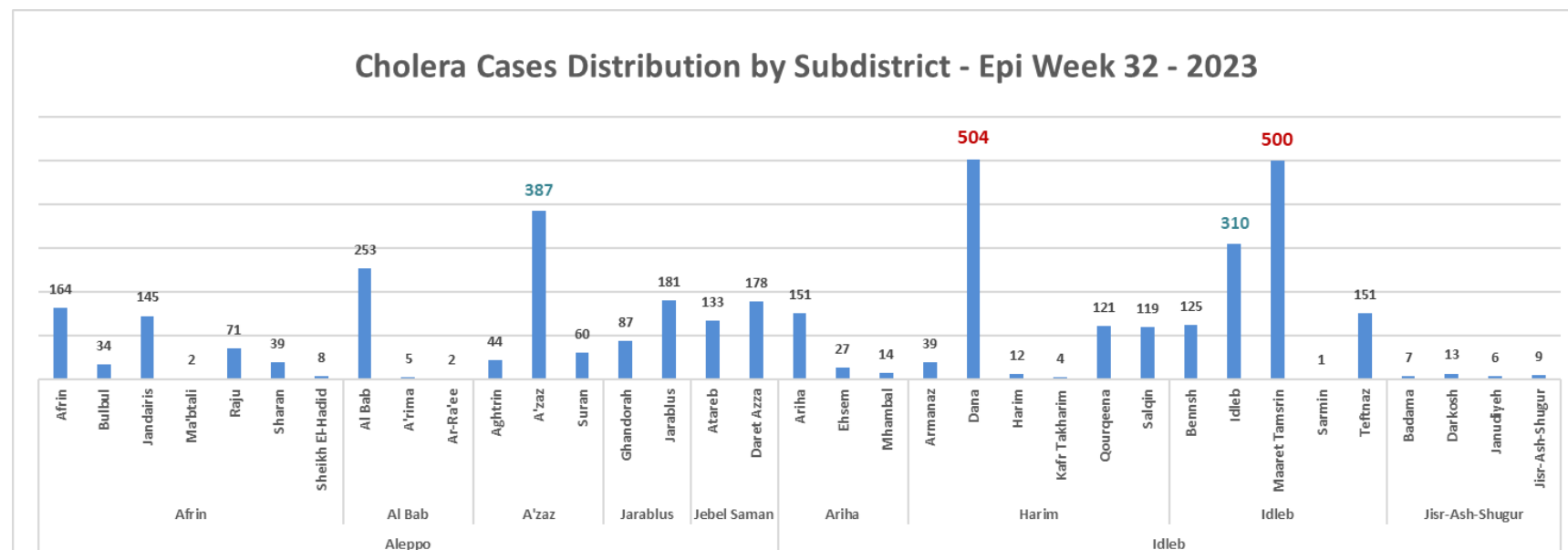
Updated case definition: A resident of outbreak areas with sudden onset of acute watery diarrhea with or without vomiting.

In Epi week 32 - 2023, **3906 suspected cases of cholera were reported**. The affected governorates are Aleppo (1793 suspected cases, 22 confirmed), and Idleb (2113 suspected cases, 19 confirmed). 31% of the total were in the camps

The age group less than 5 reported 53.56 %. Sex distribution of the suspected_cases is 48% Male, and 52% Female

There is no death in epi week 32

Dana subdistrict in Idled governorate reported the highest number of cases (504), then Maaret Tamsrin subdistrict (500) in contract Azaz subdistrict reported the highest number in Aleppo governorate (387).

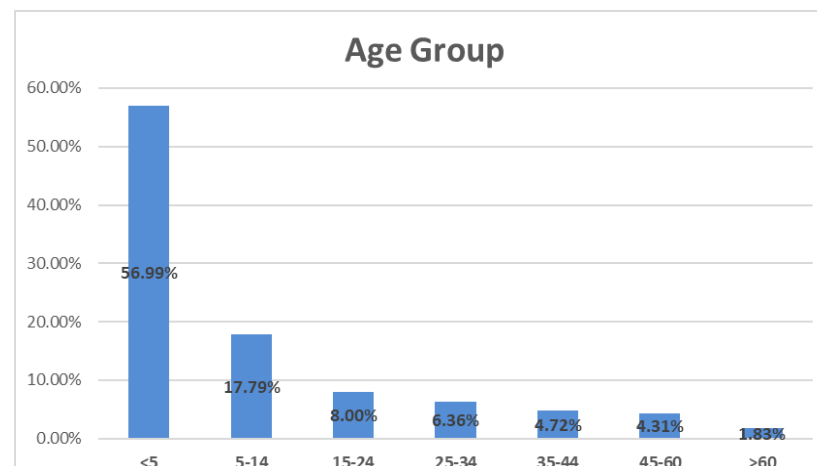
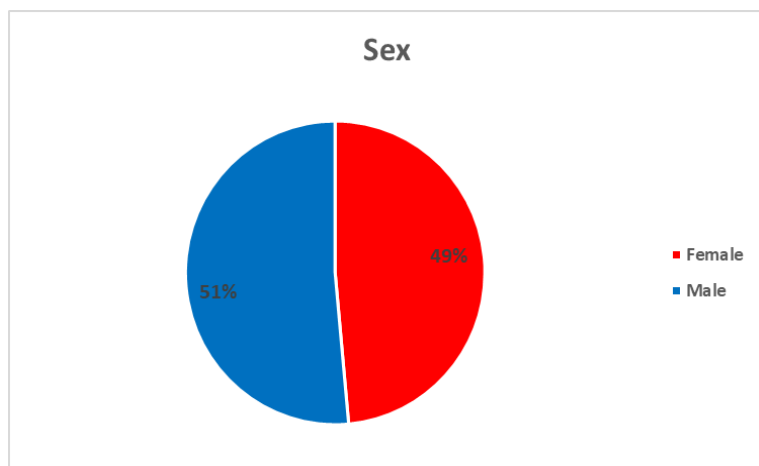


The overall sex distribution of the suspected cases is 51% Male, and 49% Female.

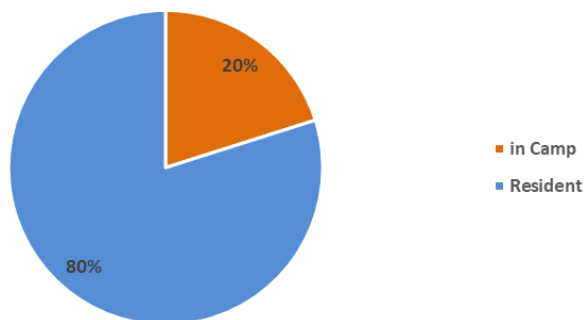
100% of the line listed cases were presented as Acute watery Diarrhea, 20% with vomiting, 4% as rice watery diarrhea, and 8% were dehydrated.

20% of the total cases live in camps (22800), and 80% out of camps (89092). (9087 of the total line listed cases are unknown)

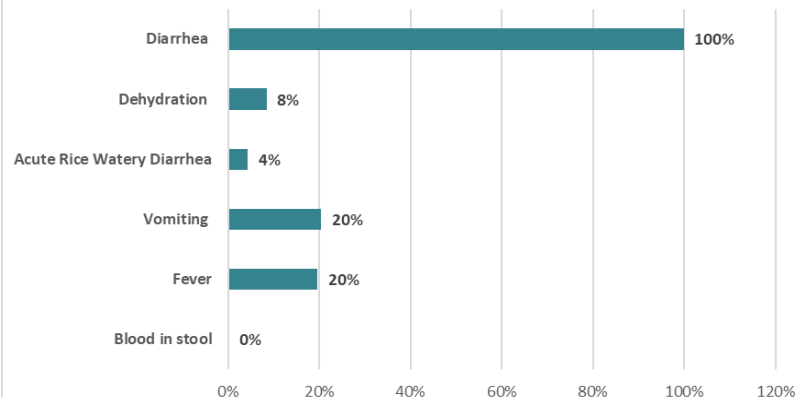
As the outbreak progresses, sensitivity should be increased by including smaller age groups and mild/moderate symptom groups in order to estimate the burden of the outbreak. According to WHO, in areas where a cholera outbreak has been confirmed, any person presenting with or dying from acute watery diarrhea is considered a suspected cholera case. The age group less than 5 years was 57.11%.



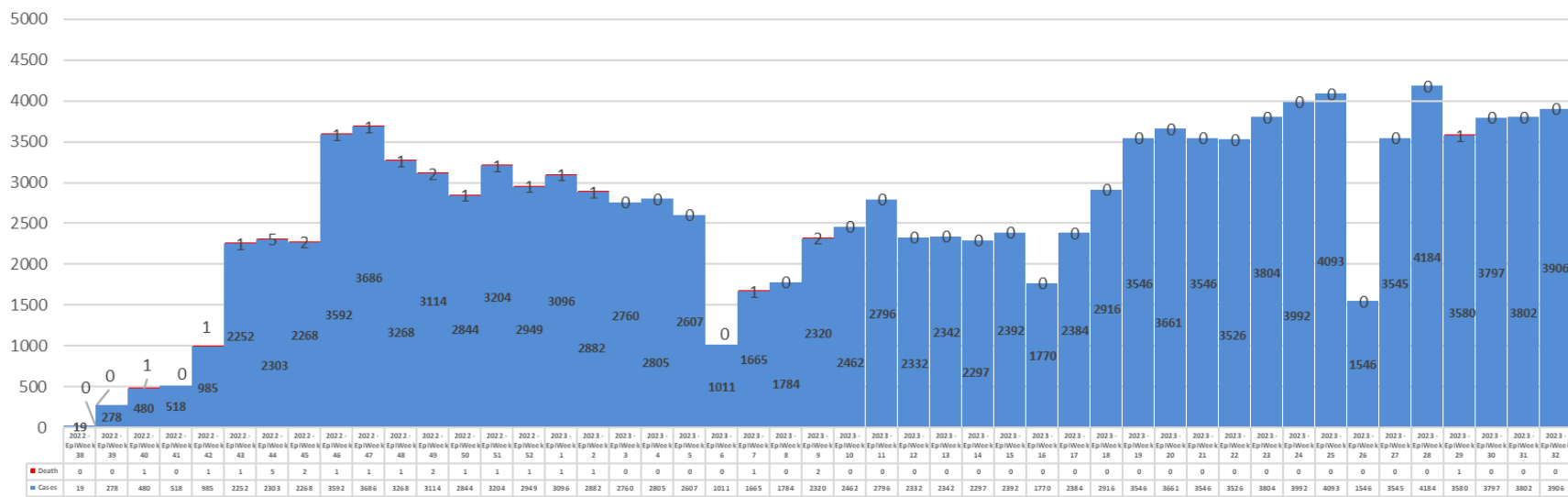
Cholera Cases Residency Distribution



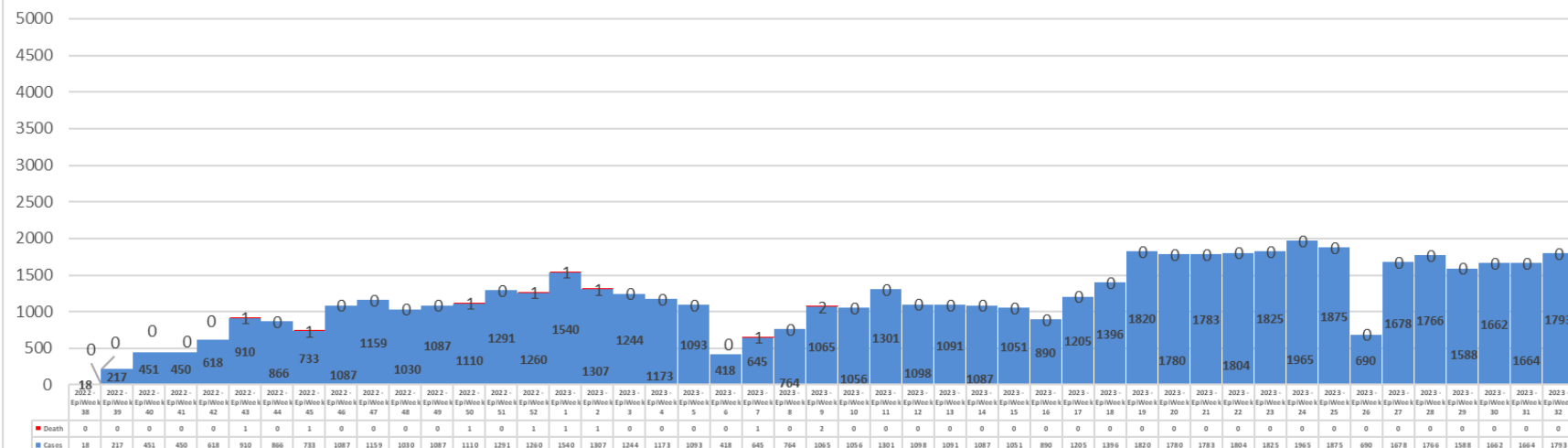
Signs and Symptoms



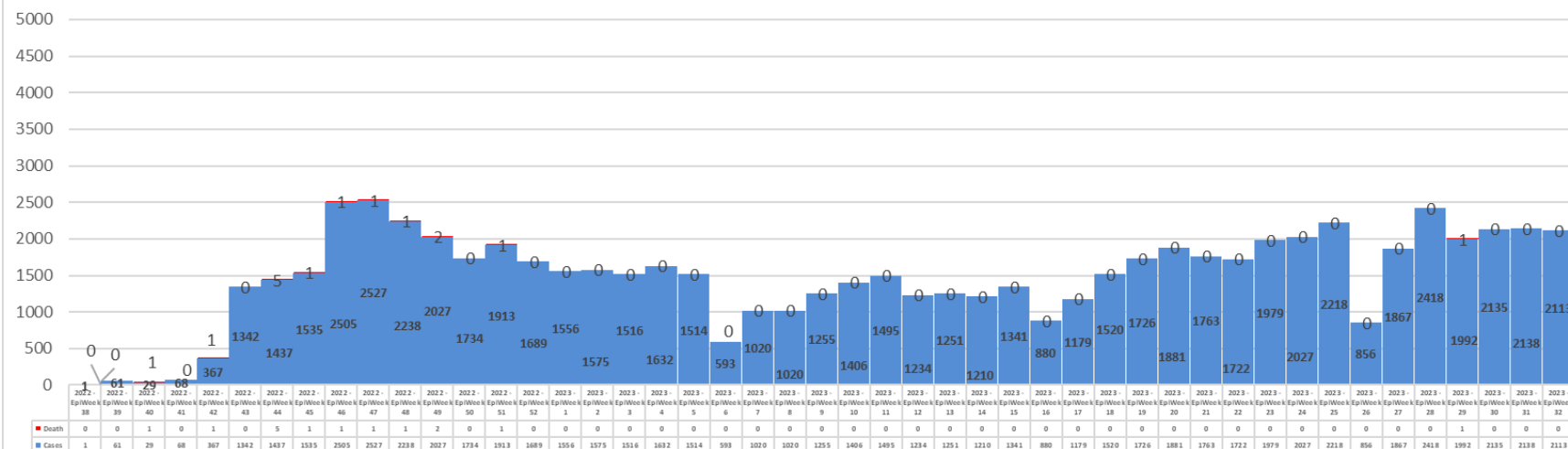
EPI Curve - Reporting Date - NWS



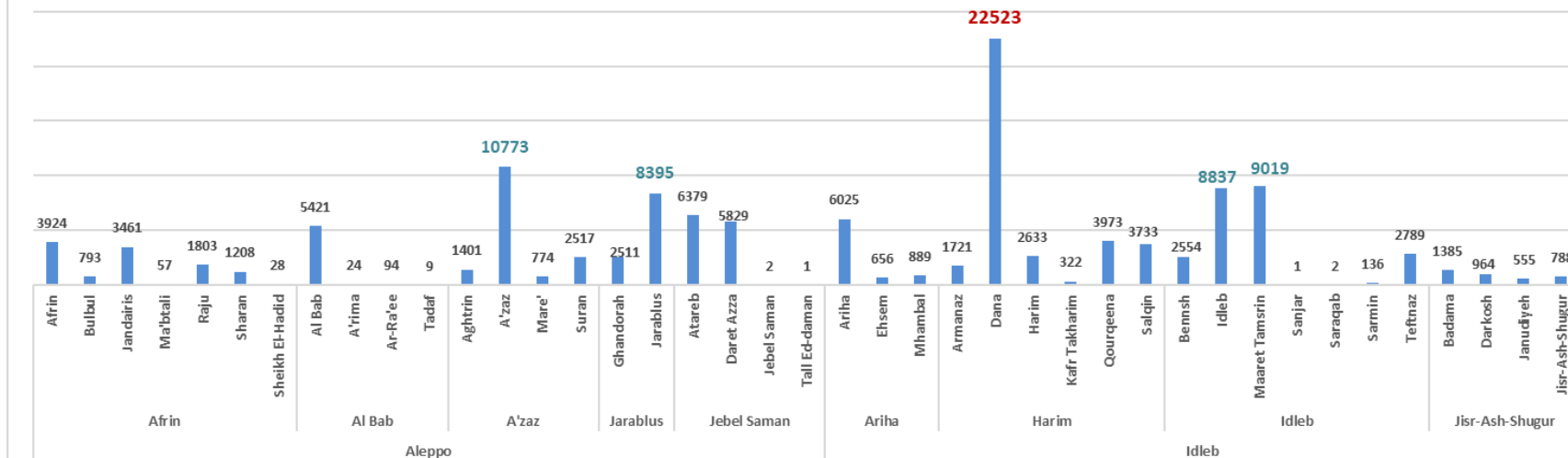
EPI Curve - Reporting Date - Aleppo Governorate



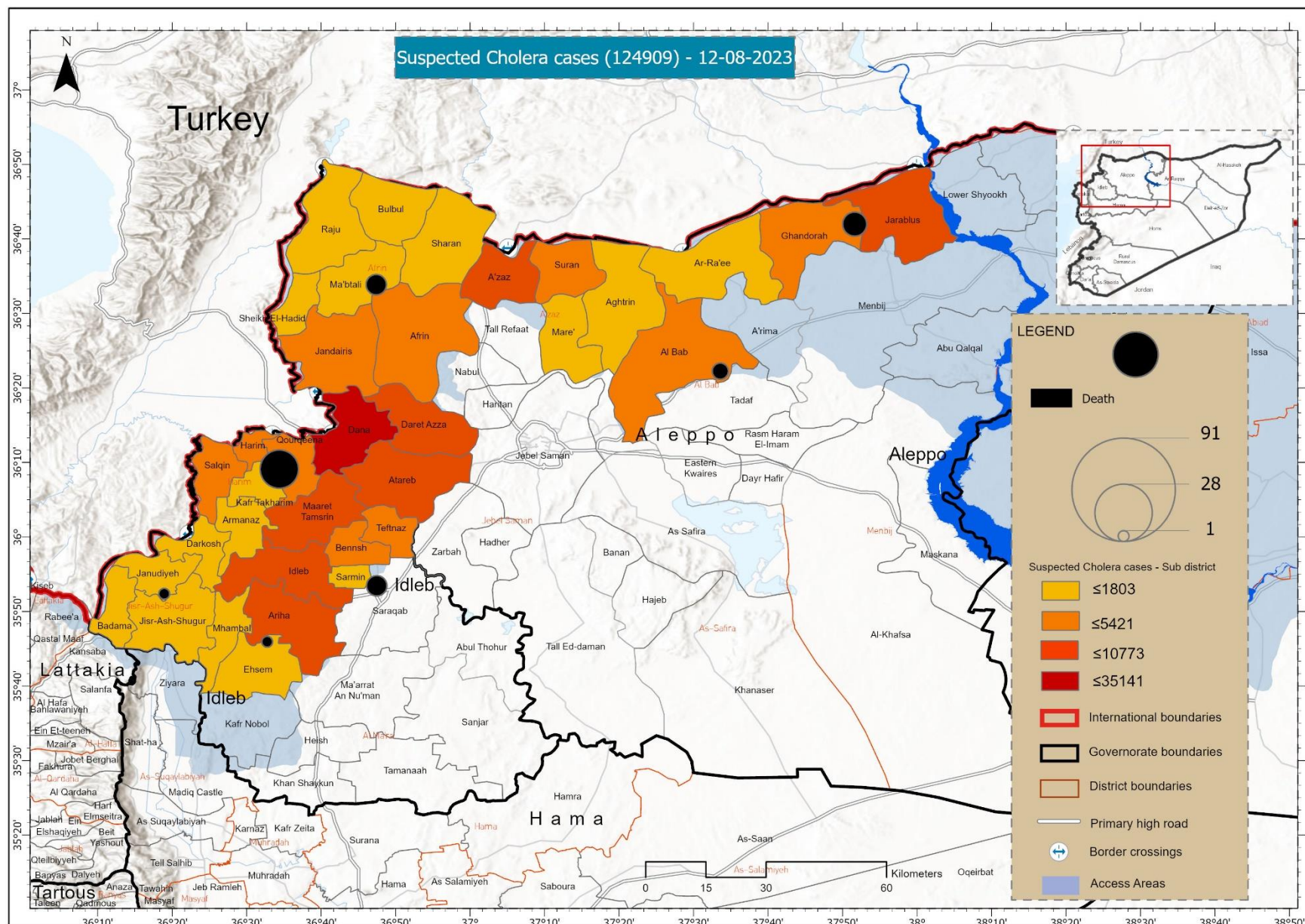
EPI Curve - Reporting Date - Idlib Governorate



Cholera Cases Distribution by Subdistrict

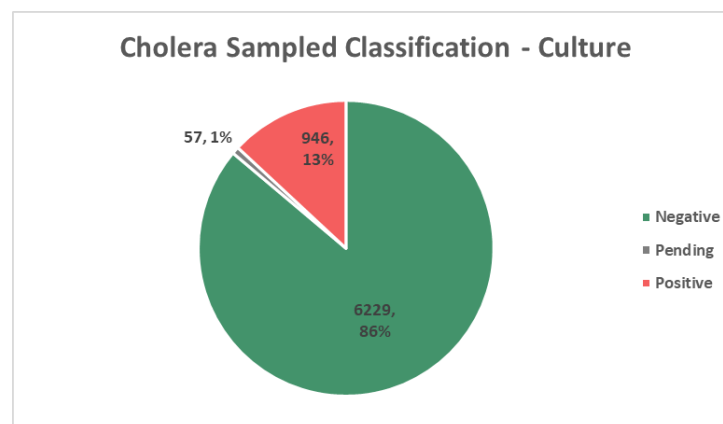
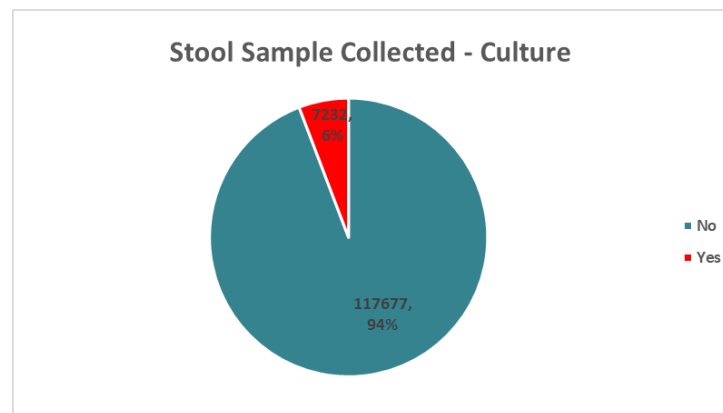


Epi Week	Governorate	District	Date of Onset	Population	New cases	Cumulative Cases	New Death	Cumulative Deaths	Case Fatality Rate	Incidence Rate	Attack Rate
Up to W32 - 2023	Idlib	Ariha	20-Sep	185,668	192	7570	0	1	0.01%	103.4	4.08%
		Harim	6-Sep	1,586,820	799	34905	0	10	0.03%	50.4	2.20%
		Idlib	14-Sep	713,933	1087	23338	0	3	0.01%	152.3	3.27%
		Jisr-Ash-Shugur	25-Sep	310,973	35	3692	0	1	0.03%	11.3	1.19%
	Aleppo	A'zaz	9-Sep	648,600	491	15465	0	0	0.00%	75.7	2.38%
		Afrin	21-Sep	467,090	463	11274	0	3	0.03%	99.1	2.41%
		Al Bab	17-Sep	339,812	260	5548	0	2	0.04%	76.5	1.63%
		Jarablus	12-Sep	121,938	268	10906	0	4	0.04%	219.8	8.94%
		Jebel Saman	10-Sep	251,785	311	12211	0	0	0.00%	123.5	4.85%
	Total			4,626,619	3906	124909	0	24	0.02%	84.4	2.70%



Laboratory:

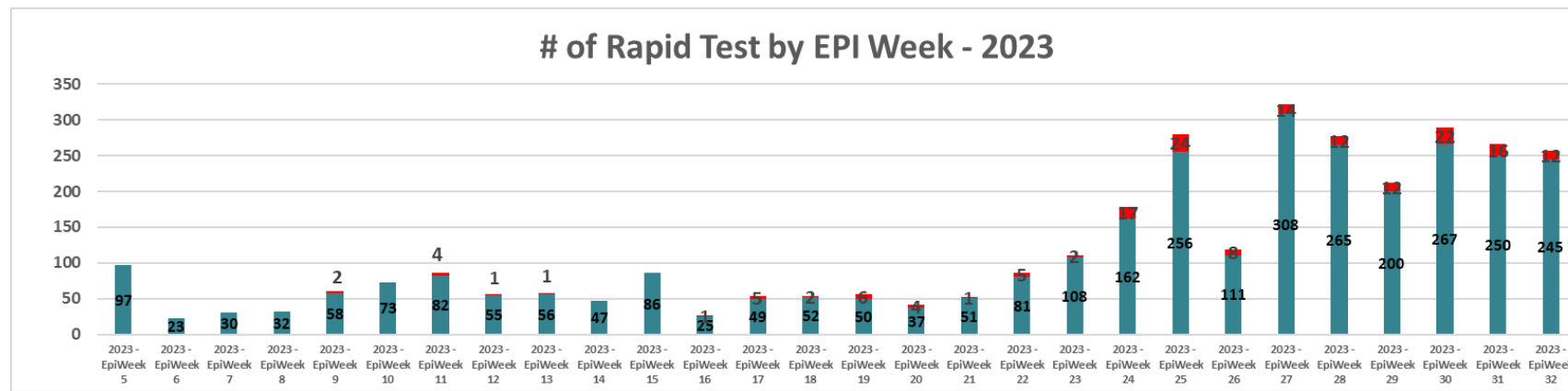
- In Epi week 32- 2023, the total number of stool specimens or rectal swabs is 175, (93 in Aleppo –22 confirmed), (82 in Idleb – 19 confirmed).
- A cumulative of 7232 samples were collected since the start of the outbreak (6 % of overall line listed cases), of which 946 have tested positive by stool culture. The total positivity rate in NWS is 13.2 %.
- The Total number of negative cases by stool culture is 6229, and the remaining 57 are still pending.
- Isolation and identification of V. cholera serogroup O1 or O139 by a culture of a stool specimen remain the gold standard for laboratory diagnosis.
- Currently, at EWARN laboratories (Idleb, Afrin, Jarablus, and Tal-Abiad) Fecal specimens are subcultured onto selective and nonselective media, including Nutrient agar and TCBS agar, for detection of V. cholera O1.
- Suspicious, oxidase-positive isolates are serotyped in polyvalent antisera raised against the O1 Antigen.
- Antimicrobial-sensitivity testing is performed to detect resistance.
- The culture sensitivity results came sensitive for the following antibiotics: Azithromycin, Imipenem, Ciprofloxacin, and Norfloxacin.
- The resistance is to Tetracycline, Doxycycline, Chloramphenicol, and Sulfamethoxazole Trimethoprim.
- The laboratory team handles the specimens and waste management according to infection control standards.
- The sample collection protocol is to collect stool samples in 5-6 % of the total suspected cholera cases per subdistrict and 5 samples from the admitted cholera suspected cases in the CTC /CTU per week.



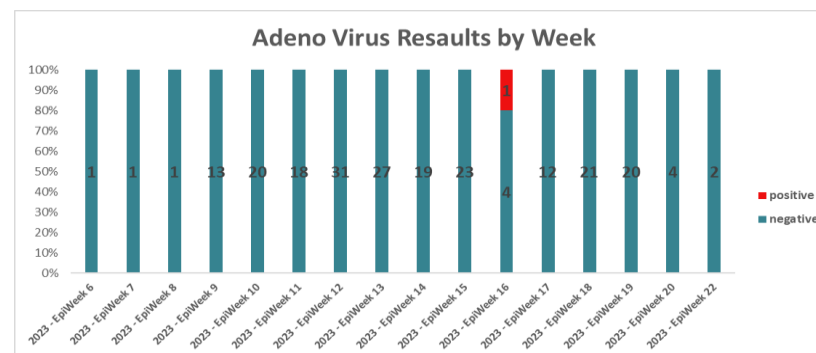
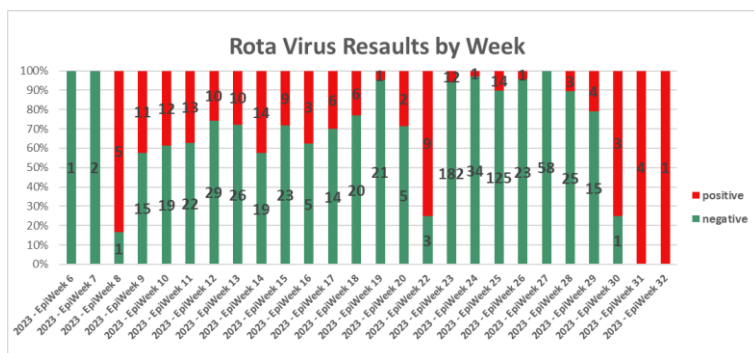
During epi week 32, EWARN received 257 RDT results from the CTC/CTUs and some HFs, 12 of them were positive for Cholera.

The total of RDT tests starting from epi week 5 reached 3156, and the total positive is 171.

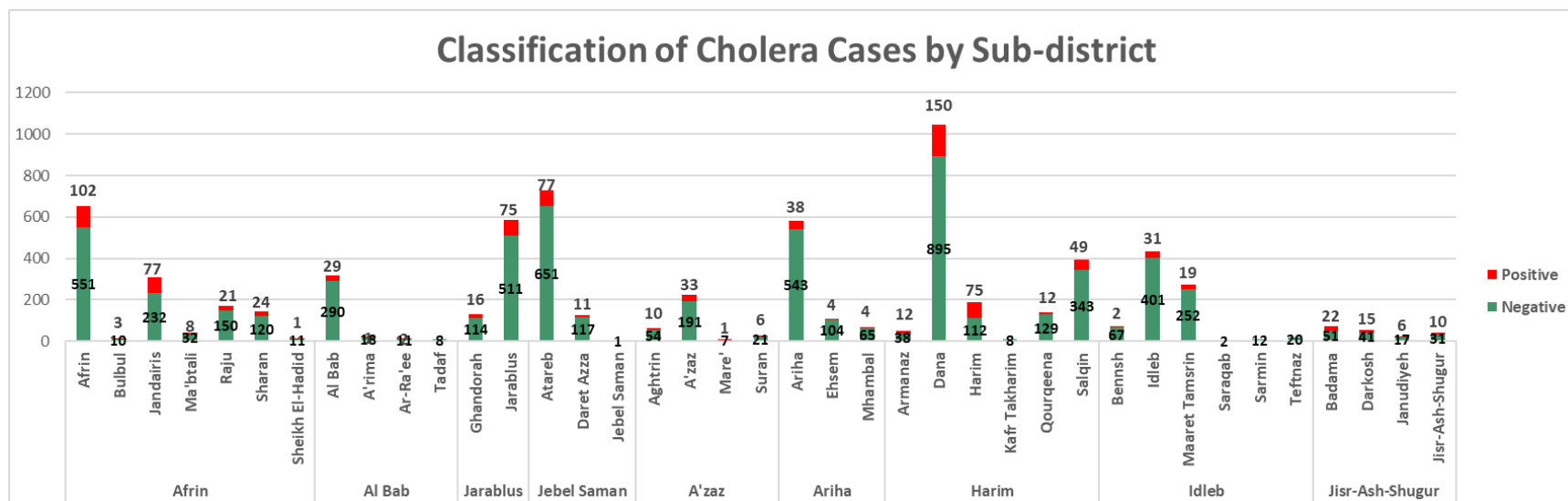
The positivity rate of RDTs, from epi week 5 – 2023 up to epi week 32 – 2023 is 5.41 %. But the positivity rate since the beginning of cholera outbreak up to epi week 32 – 2023 is 5.7 %.



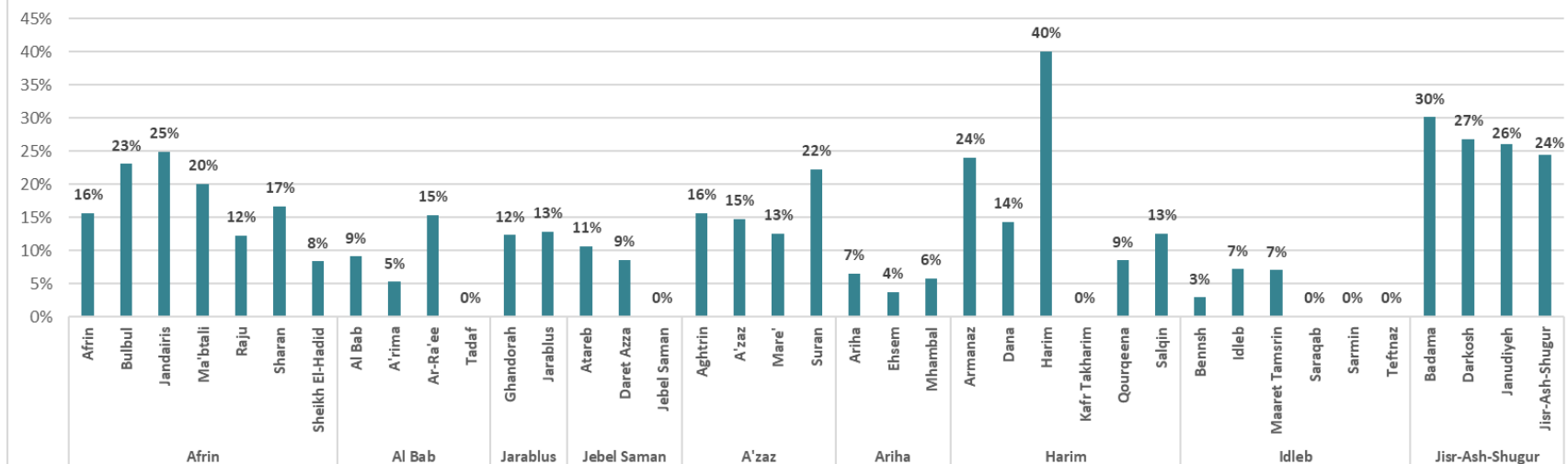
- For children under 5 years of age with a stool culture negative for cholera:
In epi week 32, there is one tested sample to detect Rotavirus, where it was positive.
- The total samples collected for Rotavirus reached 842 (154 were positive), while the total samples for Adenovirus were 218 (one positive)



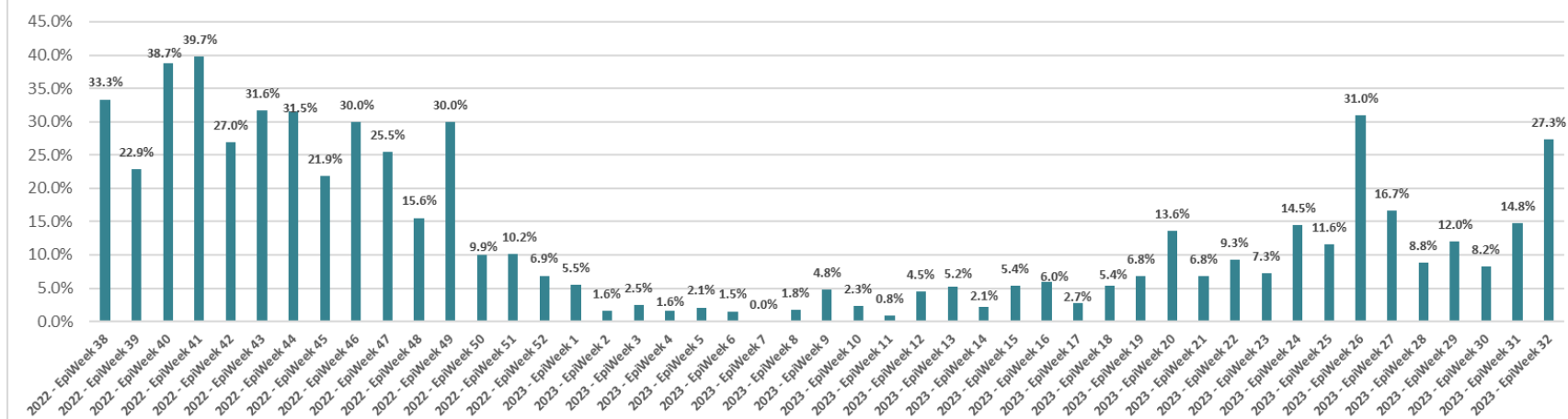
Epi Week	Governorate	District	RDT+	RDT-	Postivity Rate for RDT	Stool Culture Positive	Stool Culture Negative	Postivity Rate for Culture
Up to W31 - 2023	Aleppo	Afrin	61	420	12.7%	236	1106	17.6%
		Al Bab	10	136	6.8%	32	327	8.9%
		A'zaz	26	194	11.8%	50	273	15.5%
		Jarablus	10	196	4.9%	91	625	12.7%
		Jebel Saman	14	254	5.2%	88	769	10.3%
	Idleb	Ariha	4	187	2.1%	46	712	6.1%
		Harim	66	1053	5.9%	298	1525	16.3%
		Idleb	12	722	1.6%	52	754	6.5%
		Jisr-Ash-Shugur	4	264	1.5%	53	140	27.5%
	Total		207	3426	5.7%	946	6231	13.2%



Positivity Rate by Subdistrict



Positivity Rate by Week - Culture



2. WASH:

The WASH team works closely and in high coordination with RRT (Rapid Response Team), formed from staff working in EWARN (DLOs, FLOs...).

The team, after receiving any alert, focuses on the investigation of WASH services in the hotspot areas.

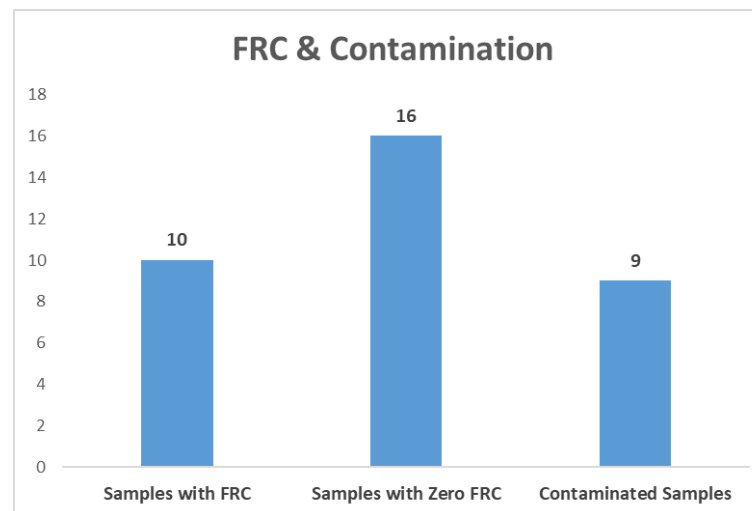
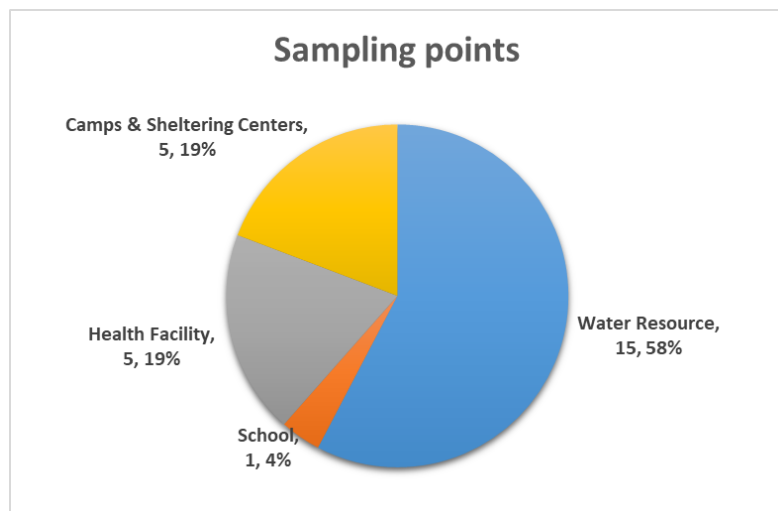
The investigation includes:

1. Taking samples from drinking water resources (main stations, wells, water trucks, water taps.... etc.).
2. Investigate sewage networks and septic tanks' locations and other sanitation services.
3. Identify Hygienic practices.... etc.
4. Assessing agriculture markets (Identify irrigation water and resource of agricultural products if applicable).

ACU team conducted **3** investigations included taking **26** samples from different points:

- **Al Bab community** / Al Bab sub-district / Al Bab district / Aleppo governorate: **7** samples were taken; 2 samples were contaminated (Private well & Water tanker).
- **Kelly Community** / Maaret Tamsrin district / Idleb district / Idleb governorate: **5** samples were taken; no sample was contaminated.
- **Maland community** / Janudiyeh sub-district / Jisr-Ash-Shugur district / Idleb governorate: **14** samples were taken; 7 of them were contaminated (water truck, private wells).

[Full Investigation Reports](#)



Actions taken

- The EWARN team is currently conducting active surveillance in the most important health facilities in northwest Syria (25 HFs). During the visit, the team reviews with the health facility staff the records to ensure the reported cases, also discusses the challenges, and recommendations, and collaborates to treat the problems.
- The EWARN team is receiving the RDT results from health facilities and CTC/CTUs and sharing them.
- To determine the causes of acute watery diarrhea in children under 5 years (the children have a negative cholera result), the EWARN lab is conducting Rotavirus rapid diagnostic tests (RDTs).
- The response teams conducted an expanded investigation of the deaths that occurred since the beginning of the outbreak (24 deaths), where some possible causes were identified, and the teams made appropriate recommendations.
- ACU teams conduct regular awareness sessions about Cholera, prevention, and control measures for local authorities and affected people during the investigation. Besides, the result of investigations is shared with the WASH cluster and acting organization in the area to take immediate action.